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10/599,947	02/26/2007	Mikko Nevalainen	P2853US00	7062

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DITTHAVONG MORI & STEINER, P.C.
918 Prince Street
Alexandria, VA 22314

EXAMINER
GEORGEWILL, OPIRIBO

ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
09/15/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 August 2010*.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-16,18-20 and 22-43* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-5,7-16,18-20 and 22-43* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1. This action is responsive to Applicant's amendment filed on 8/20/2010. Claim 44
   is newly added.

Response to Arguments

2. Applicant's arguments filed 8/20/2010 have been fully considered but they are
   not persuasive.

3. On page 16 of Applicant's response, Applicant argues that Coley (US Pub No.
   20010011253 A1) does not disclose starting a restricted execution of said
   application, with a predetermined functional limit and further restricting the
   execution of said application, with more restrictive functional limits.

4. Examiner respectfully disagrees with Applicant, as outlined in the Office action,
   Coley indeed teaches starting a restricted execution of said application, within
   predetermined functional limit (paragraph [79]). Coley teaches that the check in
   license procedure can be used to return a license or disable a feature when a
   user has completed use of the client application or a feature contained therein.
   Therefore, subsequent starting of the application will occur with said feature
   being disabled (within predetermined functional limit). Also further restart of
   application might result in additional features being disabled (further restricting
   execution of said application within a more restrictive functional limits) i.e. for the
   case where additional features have are disabled when the user has completed
   use of feature (see paragraph [79]) or the disabling of the software application

(further restricting execution of said application within a more restrictive functional limit) (see paragraph [48]).

5. Applicant argues on page 17, that claim language of claim 27 and it functions are different from 7 and as such there is no articulate reason for how the rejection in the Office action ties claim 7 as the receiving side of the method of claim 7.

6. Examiner respectfully disagrees with Applicant, first pointing that claim 7 depends from claim 1 and as such limitations in claim 7 are in claim 1. Receiving a message from the corresponds to the message initiated to the surveillance center in claim 1; generating an authorization to restricted execution of said application corresponds to receiving an authorization to execute said application within said limits defined by said surveillance center. As such, said limitations are tied to each other and the discussed in the rejection of claims 1 and 7 and so implies and show the claimed features of claim 27.

7. Applicant argues on page 18 that Coley does not teach the generating, at the surveillance center, an authorization to a restricted execution of said application within predetermined functional limits.

8. Examiner respectfully disagrees with Applicant since Coley clearly teaches restricting execution of said application within predetermined functional limits (paragraph [79], disable a feature. Implies subsequent operation of the application will be with predetermined functional limits. Furthermore, Check In License procedure is used to disable a feature when the user has completed use of the feature. Implying that a application operating under predetermined

functional limits as described above that is started after another feature use has

been completed will result in disabling of said another feature (further restricting

within a more restrictive functional limit). Furthermore the Coley teaches the

generation of authorization at the surveillance center (paragraph [79], feature to

be disabled)

9. In view of the above, Examiner maintains rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

    form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 2, 4, 5, 7, 8, 9, 15, 16, 20, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36**

    37, 38, 39, 40, 41, 42, 43 are rejected under 35 U.S.C. 102(b) as being

    anticipated by Coley et al., US Pub No. 20010011253 A1

    Re claim **1**, Coley discloses a method comprising:

detecting, at a mobile terminal device (paragraph [104], laptop), a user input

directed to start the execution of an application on said terminal device

(paragraph [46], the client module performs an initial check each time the

software application is brought up)

initiating a message to a surveillance center, wherein the message indicates the execution of an application has started (paragraph [92], The software license can be validated each time the application is brought up on a computer or each time a particular feature is used; paragraph [18], auditing use of client application) and starting a restricted execution of said application within a predetermined functional limit, after said message has been initiated (paragraph [79], the Check In License procedure can be used to return a license or disable a feature (predetermined functional limit) when the user has completed use of the client application or the feature contained therein)

determining whether the message has been sent (paragraph [88], a status message indicating an error code, an indication that the server or agent is presently too busy to handle a query (message has been sent), an indication of a connection or communication failure (message has been sent); paragraph [47], The response message is returned to the client (message has been sent))

further restricting the execution of said application, within a more restrictive functional limit based on said determination (paragraph [79], the Check In License procedure can be used to return a license or disable a feature (more restrictive functional limit) when the user has completed use of the client application or the feature contained therein. This is clearly based on the determination that a message is sent (paragraph [47], response message to the client module; alternatively see paragraph [92], where Coley teaches that on returning of a null license ID the client application is disabled. Coley further

teaches in paragraph [73], that the client data structure contains the authorization and license ID, and in paragraph [88] that a authorization ID indicating a failed delivery is return. This implies that when a authorization ID status of failed delivery is returned through the client data structure, the license ID is null, since clearly it has not been given a failure, and as such, paragraph [92] necessitates the disabling of the application (further restricting based on the determination of message sent)).

The rejection of claim 1 is incorporated herein. Claims 2, 4, 5, 7, 9, 15, 16, 20, 22, 23, 25, 26, 44 depend on claim 1 and only further limitations will be addressed below.

Re claim **2**, Coley discloses sending the message to said surveillance center (paragraph [47], after formation, the request message is sent to the license server); and said further restriction of said application, within predetermined limits, after said message has been sent (paragraph [79], the Check In License procedure can be used to return a license or disable a feature (predetermined functional limit) when the user has completed use of the client application or the feature contained therein)

Re claim **4**, Coley discloses that the message indicates the start of an execution of an application (paragraph [18], auditing use of client application)

Re claim **5**, Coley discloses that the restricted execution is further based on a time limit (paragraph [74], demonstration mode for a predefined period of time)

Re claim **7**, Coley discloses the setting up a connection to the surveillance

center (paragraph [46]); sending a message to the surveillance center, said

message comprising application execution related data (paragraph [47]); and

receiving an authorization to execute said application within said limits defined by

said surveillance center (paragraphs [47], [48])

The rejection of claim 7 is incorporated herein. Claim 8 depends on claim 7

and only further limitations will be addressed below.

Re claim **8**, Coley discloses that said application execution related data

comprises data selected from the group comprising application identification,

mobile electronic terminal identification, user identification, player identification,

communication parameter, and pin-code (paragraph [47])

Re claim **9**, Coley discloses that the application starts the sending of a

message to said surveillance center (paragraph [46], client module performs an

initial check)

Re claim **15**, Coley discloses that the message is sent periodically (paragraph

[49], the client module may, at this point, start a timer for periodic checking of

license validity)

Re claim **16**, Coley discloses that the application determines the number of

messages to be sent and the point in time a message is sent (paragraph [49],

[50])

Re claim **20**, Coley discloses the determining conditions that prevent the

sending of said message (paragraph [88], clearly any of the listed status

messages are indications on why a message was not sent), and wherein the execution of said application is further based on whether the conditions are present (paragraph [92], where Coley teaches that on returning of a null license ID the client application is disabled. Coley further teaches in paragraph [73], that the client data structure contains the authorization and license ID, and in paragraph [88] that an authorization ID indicating a failed delivery is return. This implies that when a authorization ID status of failed delivery is returned through the client data structure, the license ID is null, since clearly it has not been given a failure, and as such, paragraph [92] necessitates the disabling of the application (execution said application is further based on whether the condition is present). Also see paragraph [75], where Coley clearly teaches that a software provider can force a user to attach a non-connected computer to a network access point (determining conditions that prevent the sending of said message) and that client application will not enable unless and until it check in (execution of said application is further based on whether conditions are present))

Re claim **22**, Coley discloses receiving a confirmation message that the message has been sent (paragraph [47], response message)

Re claim **23**, Coley discloses the interrupting of the execution of said application, if said message has not been sent (paragraph [92], where Coley teaches that on returning of a null license ID the client application is disabled. Coley further teaches in paragraph [73], that the client data structure contains the authorization and license ID, and in paragraph [88] that an authorization ID

indicating a failed delivery is return. This implies that when a authorization ID status of failed delivery is returned through the client data structure, the license ID is null, since clearly it has not been given a failure, and as such, paragraph [92] necessitates the disabling of the application (interrupting the execution of said application, if said message has not been sent)

Re claim **25**, Coley discloses the downloading application software to said mobile terminal device (paragraph [107])

Re claim **26**, Coley discloses determining the actual date; comparing said actual date with time rule provided in said application; and interrupting the execution of said application, if said actual date does not meet said time rule (paragraph [74])

Re claim **27**, the claim is the receiving side of the method claim 7 and 44 and would necessitate the method of claims 7 and 44 be carried out for it to actualize. It is therefore rejected for the same reasons as claims 7 and 44 above.

The rejection of claim 27 is incorporated herein. Claim 28 depends on claim 7 and only further limitations will be addressed below.

Re claim **28**, the claim is the receiving side of the method claim 7 and would necessitate the method of claim 7 be carried out for it to actualize. It is therefore rejected for the same reasons as claim 7 above.

Re claim **29**, it has similar limitations to claim 1 that are is met by the reference above and is rejected for the same reason as anticipated as above.

Re claim **30**, it is drawn to the computer readable medium embodying a program to execute claim 1 and is rejected for the same reasons as above (see paragraph [108] showing software implementation)

Re claim **31**, it is drawn to the computer readable medium embodying a program to execute claim 1 and is rejected for the same reasons as above (see paragraph [108] showing software implementation)

Re claim **32**, it is drawn to the apparatus by the corresponding method claim 7 and is rejected for the same reasons as above.

Re claim **33**, as applied to claim 32 above, it is drawn to the apparatus by the corresponding method claim 7 and is rejected for the same reasons as above.

Re claim **37**, it is drawn to the apparatus by the corresponding method claim 7 and is rejected for the same reasons as above.

Re claim **38**, as applied to claim 37, it is drawn to the apparatus by the corresponding method claim 7 and is rejected for the same reasons as above.

Re claim **39**, it is drawn to the system by the corresponding method claims 7 and 27 and is rejected for the same reasons as above.

Re claim **40**, it contains similar limitations to claim 27 that is met by the reference above and is rejected for the same reason as anticipated above.

Re claim **41**, it is drawn to the computer readable medium embodying a program to execute claim 27 and is rejected for the same reasons as above (see paragraph [108] showing software implementation)

Re claim **42**, it is drawn to the computer readable medium embodying a program to execute claim 1 and is rejected for the same reasons as above (see paragraph [108] showing software implementation)

Re claim **43**, Coley discloses buffering the message based on the determination, wherein the execution of said application is further based on whether said buffer is full (paragraph [102], TCP which is known and expected to have buffering; paragraph [47], the response message (determination that message is sent). Since clearly Coley teaches that the determination is made that the message is sent, and TCP is know and expected to not buffer (buffer) based on the determination, clearly the buffer is full limitation is met also)

Re claim **36**, as applied to claim 32 above, it is drawn to the apparatus by the corresponding method claim 43 and is rejected for the same reasons as above.

Re claim **44**, Coley discloses wherein the message is initiated after a predetermined period of time has passed since the application was first started or after a predetermined number of input actions has been input to the application (paragraph [92], the software license can also be validated in response to the expiration of a timer)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in **Graham v. John Deere Co., 383 U.S. 1, 148
USPQ 459 (1966)**, that are applied for establishing a background for determining
obviousness under 35 U.S.C. 103(a) are summarized as follows: *(See MPEP Ch.
2141)*

> a. Determining the scope and contents of the prior art;
> b. Ascertaining the differences between the prior art and the claims in issue;
> c. Resolving the level of ordinary skill in the pertinent art; and
> d. Evaluating   evidence   of   secondary   considerations   for   indicating
>   obviousness or nonobviousness.

6. **Claims 3, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Coley et al., US Pub No. 20010011253 A1, as applied in claim 1 above, in

view of Kolakowski, Victoria, S., WIPO Pub No. 200249732 A1.

The rejection of claim 1 is incorporated herein. Claim 3 depends on claim 1

and only further limitations will be addressed below.

Re claim **3**, Coley discloses the claimed invention but is silent said application

being a game. Kolakowski in analogous art discloses a method of surveyed

executing (page 3, lines 22 - 28, software encryption key to authorize the

wireless remote entertainment system to operate for a predetermined time or

amount of usage; page 9, lines 27 - 30, functionality using upstream channel ...

may be changed ... purchase key) of an application (page 9, line 27, fully

interactive functionality) on a mobile terminal device (fig 1, abstract, mobile). Kolakowski further discloses the application is a game (page 4, line 15, operating a game). It would therefore have been obvious, to a person having ordinary skills in the arts, at the time the invention was made, to simply substitute the application disclosed by Coley with the game application obtaining the predictable result of the application being a game application so as to move data to the user (page 2, lines 23 – 24)

Re claim **34**, as applied to claim 32 above, it is drawn to the apparatus by the corresponding method claim 3 and is rejected for the same reasons as above.

7. **Claims 10, 11, 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coley et al., US Pub No. 20010011253 A1, as applied in claim 1 above, in view of Raiz et al., US Pub No. 20020164025 A1.**

The rejection of claim 7 is incorporated herein. Claim 10 depends on claim 7 and only further limitations will be addressed below.

Re claim **10**, Coley discloses the claimed invention including the outing a user-authorization request to send a message (paragraph [23], a menu can be presented asking whether the user would like to purchase a license) but does not explicitly disclose that the message is sent to the surveillance center. Raiz in analogous art discloses a method of surveyed executing of an application (see abstract, fig 1). Raiz further teaches the outputting of a user-authorization request to send a message to a surveillance center (paragraph [51], request a renewed authorization key (message) ... the user is alerted to call in or complete

the registration wizard to restart account; table III, license server (surveillance center), which is clearly the only source for restarting the account). It would therefore have been obvious to a person having ordinary skills in the art, at the time the invention was made, to incorporate the teaching of Raiz into the disclosure of Coley to have the outputting of a user-authorization request to send a message, as disclosed by Coley, to the surveillance center, as disclosed by Raiz so as to deploy software more efficiently (paragraph [5]). Coley in view of Raiz further discloses detecting a user-authorization input authorizing said connection set-up (implicit from step above)

The rejection of claim 1 is incorporated herein. Claim 11 depends on claim 1 and only further limitations will be addressed below.

Re claim **11**, Coley in view of Raiz discloses the outputting a user-authorization request to perform a payment transaction (Raiz: paragraph [39], The user may be presented with a change to select ... the user will choose a desired level of subscription. Should the subscription level require payment, the user must supply payment method); detecting a user-authorization input for authorizing said payment transaction (implicit from step above) and performing said payment transaction (Raiz: paragraph [44], payment information is directed to the financial system where the payment is validated and charged)

The rejection of claim 11 is incorporated herein. Claims 12, 13 depend on claim 11 and only further limitations will be addressed below.

Re claim **12**, Coley in view of Raiz discloses wherein said authorization payment transaction is performed by charging payment device (Raiz: paragraph [27], financial and commercial function; paragraph [44]) but is silent on the payment device being onboard. It would have been obvious to one having ordinary skill in the art at the time the invention was made to payment device part of the mobile terminal device since it has been held that forming in one piece an article which has formally been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U.S. 164 (1893).

Re claim **13**, Coley in view of Raiz discloses wherein said authorized payment transaction is performed by sending said authorization for said payment transaction to said surveillance center (Raiz: paragraph [44], table II, col 2, where Raiz discloses the License server (surveillance center) directs payment to the financial system. Implies receives authorization)

8. **Claims 14, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coley et al., US Pub No. 20010011253 A1, as applied in claim 1 above, in view of Raiz et al., US Pub No. 20020164025 A1 and further in view of Applicant Admitted Prior Art (henceforth "AAPA").**

The rejection of claim 11 is incorporated herein. Claim 14 depends on claim 11 and only further limitations will be addressed below.

Re claim **14**, Coley in view of Raiz discloses the claimed invention including the payment is billed to the client (Coley: paragraph [99]) but is silent on said payment transaction is charged to the next telephone bill. AAPA in analogous art

discloses applications and distribution and use of application games (paragraph [6]). AAPA further discloses that application payment transaction is charged to the next telephone bill (paragraph [6]). It would therefore have been obvious to a person having ordinary skills in the art, at the time the invention was made, to incorporate the teaching of AAPA into the disclosure of Coley in view of Raiz, having the payment transaction being charged to the next telephone bill so as to conveniently pay for the application (paragraph [5])

The rejection of claim 32 is incorporated herein. Claim 35 depends on claim 32 and only further limitations will be addressed below.

Re claim **35**, Coley in view of Raiz and further in view of AAPA discloses the apparatus comprises a cellular telephone (AAPA: paragraph [6])

9. **Claim 18, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coley et al., US Pub No. 20010011253 A1, as applied in claim 1 above, in view of Meyer, Michael., "TCP Performance over GPRS", In Proc Wireless Communication and Networking Conference, 1999, WCNC, 1999 IEEE, vol 3**

The rejection of claim 1 is incorporated herein. Claims 18, 24 depend on claim 1 and only further limitations will be addressed below.

Re claim **18**, Coley discloses the claimed invention including using TCP mechanism (paragraph [102]) and confirmation message that a message has been sent (paragraph [47], response message) but is silent on the determination that the message has not been sent if a confirmation message has not been received within a defined period. Meyer in analogous art discloses a TCP system

used in a mobile terminal device (abstract). Meyer further discloses the determination that a message has not been sent, if a confirmation message that said message has been sent is received within a defined time (page 1249, col 2, section III, paragraph [2], where Meyer discloses a TCP timeout (confirmation message not received during a defined time), and that the timeouts should only occur if segments (messages) are lost). It would therefore have been obvious to a person having ordinary skills in the arts, at the time the invention was made, to incorporate the teaching of Meyer into the disclosure of Coley to determine the message has been sent if a confirmation message that the message has been sent is not received within a defined period so as to use TCP in a GPRS network (abstract).

Re claim **24**, Coley in view of Meyer discloses that the message is sent via a general packet radio service (Meyer: page 1249, col 2, section IV, paragraph [2])

10. **Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coley et al., US Pub No. 20010011253 A1**

The rejection of claim 1 is incorporated herein. Claim 19 depends on claim 1 and only further limitations will be addressed below.

Re claim **19**, Coley in view of Meyer discloses the claimed invention including TCP mechanism (paragraph [102]) but is silent on buffering of said messages not sent. However official notice is taken that at the time the invention was made, buffering of messages not sent was known and expected when TCP mechanism is used in communication. It would therefore have been obvious to a person

having ordinary skills in the arts, at the time the invention was made to buffer the messages not sent so as to have re-transmission ability.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to OPIRIBO GEORGEWILL whose telephone number is (571)270-7926. The examiner can normally be reached on Monday through Thursday, 9:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jinsong Hu can be reached on (571)272-3965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/OPIRIBO GEORGEWILL/
Examiner, Art Unit 2617

/Jinsong Hu/
Supervisory Patent Examiner, Art Unit 2617